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AGO ltr 29 Apr 1980

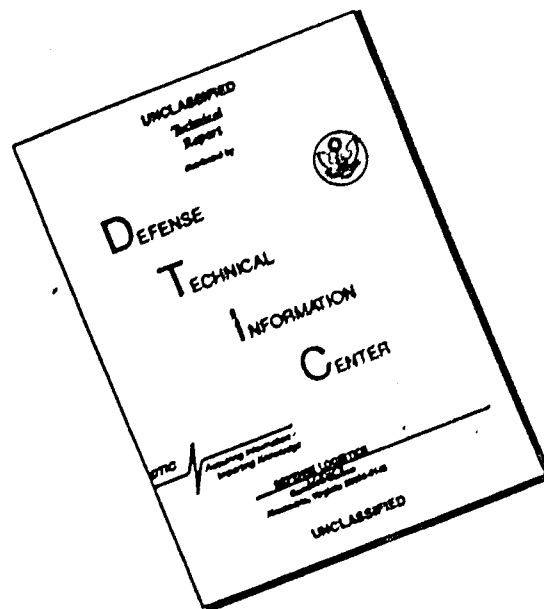
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DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL
WASHINGTON, D.C. 20310

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AGDA-A (M) (16 Apr 71) FOR OT UT 704055

5 May 1971

SUBJECT: Operational Report - Lessons Learned, Headquarters, 92d Engineer Battalion, Period Ending 31 October 1970

SEE DISTRIBUTION

1. The attached report is forwarded for review and evaluation in accordance with para 4b, AR 525-15.
2. The information contained in this report is provided to insure that lessons learned during current operations are used to the benefit of future operations and may be adapted for use in developing training material.
3. Information of actions initiated as a result of your evaluation should be forwarded to the Assistant Chief of Staff for Force Development, ATTN: FOR OT UT within 90 days of receipt of this letter.

BY ORDER OF THE SECRETARY OF THE ARMY:

VERNE L. BOWERS
Major General, USA
The Adjutant General

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DEPARTMENT OF THE ARMY
HEADQUARTERS, 92D ENGINEER BATTALION
AFO 96491

EGBD-OP

14 November 1970

SUBJECT: Operational Report - Lessons Learned, 92d Engineer Battalion
(Construction), Period Ending 31 October 1970, RCS CSFOR-65(R2)

THRU: Commanding Officer, 159th Engineer Group, ATTN: WEB-CP, AFO 96491
Commanding General, 20th Engineer Brigade, ATTN: AVBI-OS, AFO 96491
Commanding General, USAECV(P), ATTN: AVCG-NC, AFO 96491
Commanding General, United States Army, Vietnam, ATTN: AVHDC-DC, AFO 96491
Commander-in-Chief, United States Army, Pacific, ATTN: GPCP-DT, AFO 96588

TO: Assistant Chief of Staff for Force Development
Department of the Army (ASFOR-DA)
Washington, D.C. 20310

Section 1, Operations: Significant Activities

1. Command: LTC Charles E. Eastburn commanded the 92d Engineer Battalion during the reporting period of 1 August 1970 to 31 October 1970.

a. The 92d Engineer Battalion Headquarters and Headquarters Company is organized under MTOE 5-116G, strength b; A Company under MTOE 5-117G, strength b; and Companies B, C, and D under MTOE 5-118G, strength b. The 41st Engineer Company (Port Construction) is organized under MTOE 5-129G and was attached by 159th Engineer Group General Order Number 34, dated 18 December 1967. The 515th Engineer Platoon (Asphalt) is organized under MTOE 5-114D, paragraph 4, and was attached by 159th Engineer Group General Order 53 dated 31 October 1969. The 22nd, 38th, 156th, 551st and 917th Engineer Detachments (Well Drilling) are organized under MTOE 5-500C and were attached by 159th Engineer Group General Order 10 dated 12 March 1970. The 22nd, 551st and 917th Engineer Detachments (Well Drilling Team) MTOE's 5-500C were superseded by HQ, Department of the Army, Washington, recapitulation upgraded from 2 to 5 enlisted personnel. The 94th Engineer Detachment (Quarry) is organized under MTOE 5-520G and was assigned by 159th Engineer Group General Orders 38, dated 7 October 1970.

b. The mission of the battalion is to construct and rehabilitate roads, airfields, pipeline systems, structures and utilities, to assist emergency recovery operations, and to defend 2000 meters of the Long Binh Post Perimeter. The attached company has the mission of port construction and pier-protective systems.

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c. The 92d Engineer Battalion ACR consists of Phuoc Tuy, Bien Hoa, Gia Dinh Provinces, and Vung Tau Quarry Site.

d. Assignment: The 92d Engineer Battalion has been assigned to the 159th Engineer Group since 5 June 1967.

e. Movements: None

f. Visitors and Awards:

(1) Visitors:	6 August 1970 - Colonel Brown	159th Engr Gp CO
	28 August 1970 - Colonel Brown	159th Engr Gp CO
	2 October 1970 - BG Cooper	20th Engr Bde CO
	9 October 1970 - Colonel Brown	159th Engr Gp CO
	26 October 1970 - BG Cooper	20th Engr Bde CO

(2) Awards: The awards program has been highly emphasized. During the aforementioned period a total of 39 Bronze Star Medals, 176 Army Commendation Medals, and 1 Purple Heart Medal were awarded to members of this organization and attached units.

2. Personnel, Morale and Discipline:

a. Personnel

(1) Personnel Shortages: The following listed personnel shortages are considered critical and are in effect, having a pronounced impact upon the construction and general production capability of the 92d Engineer Battalion and its attached units, the 94th Engineer Detachment, the 41st Engineer Company (Port Construction), the 22nd Engineer Detachment (WD), the 38th Engineer Detachment (WD), the 156th Engineer Detachment (WD), the 551st Engineer Detachment (WD) and the 917th Engineer Detachment (WD):

51D20 (Mason)

<u>Auth</u>	<u>Asg</u>
14	6

51H40 (Const Mach Foreman)

<u>Auth</u>	<u>Asg</u>
39	23

51G20 (Structure Specialist)

<u>Auth</u>	<u>Asg</u>
18	3

62J20 (General Const Mach Op)

<u>Auth</u>	<u>Asg</u>
61	29

62G20 (Quarry Mach Op)

<u>Auth</u>	<u>Asg</u>
79	36

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(2) The rotational rate of the 92d Engineer Battalion, to include the 41st Engineer Company (Port Construction); 515th Engineer Platoon (Asphalt); the 94th Quarry Detachment; and the 22nd, 38th, 156th, 551st and 917th Engineer Detachments (WD), averaged 88 personnel per month. The average input into the Battalion, to include the attached units is 96 personnel per month.

(3) All military personnel shortages (E-1 to E-6) are requisitioned each month by 20th Engineer Brigade. Military personnel shortages (E-7 to E-9) are requisitioned each month by the 159th Engineer Group Personnel Section on USARV Form 162, revised 29 May 1967. Efforts are continuing in the training of unskilled military (OJT) personnel in the critically needed skills.

(4) The battalion and attached units had a total of 287 gains and 263 losses in personnel during the reporting period. The forecast rotational rates are 5.3% for November, 10.2% for December, and 10.2% for January.

(5) Personnel Strengths Chart:

(a) 31 August 1970

<u>UNIT</u>	<u>OFF</u> <u>AUTH/ASG</u>	<u>W/O</u> <u>AUTH/ASG</u>	<u>EM</u> <u>AUTH/ASG</u>	<u>TOTAL</u> <u>AUTH/ASG</u>
92d	31/25	7/4	636/669	674/698
41st	9/6	1/1	171/149	181/156
515th	1/1	0/0	31/30	32/31
22nd	0/0	0/0	5/3	5/3
38th	0/0	0/0	2/1	2/1
156th	0/0	0/0	2/2	2/2
551st	0/0	0/0	2/3	5/3
917th	0/0	0/0	2/2	5/2

(b) 30 September 1970

<u>UNIT</u>	<u>OFF</u> <u>AUTH/ASG</u>	<u>W/O</u> <u>AUTH/ASG</u>	<u>EM</u> <u>AUTH/ASG</u>	<u>TOTAL</u> <u>AUTH/ASG</u>
92d	31/29	7/7	636/706	674/742
41st	9/7	1/1	171/158	181/166
515th	1/1	0/0	31/23	32/24
22nd	0/0	0/0	5/5	5/5
38th	0/0	0/0	2/0	2/0
156th	0/0	0/0	2/0	2/0
551st	0/0	0/0	5/5	5/5
917th	0/0	0/0	5/0	5/0

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(Construction), Period Ending 31 October 1970, PCS CSFOR-65(R2)

(c) 31 October 1970

<u>UNIT</u>	<u>CFF</u> <u>AUTH/ASG</u>	<u>W/O</u> <u>AUTH/ASG</u>	<u>E/M</u> <u>AUTH/ASG</u>	<u>TOTAL</u> <u>AUTH/ASG</u>
92d	31/29	7/7	636/724	674/760
94th	4/6	1/1	177/97	185/104
41st	9/7	1/1	171/147	181/157
515th	1/1	0/0	31/28	34/29
22nd	0/0	0/0	5/5	5/5
38th	0/0	0/0	2/0	2/0
156th	0/0	0/0	2/0	2/0
551st	0/0	0/0	5/4	5/4
917th	0/0	0/0	5/0	5/0

b. Morale has been excellent during the entire quarter. There were 85 foreign service tour extensions approved during the reporting period; 49 of these were for an additional six months. The Battalion had 76⁺ participation in the Savings Bond Program.

c. Discipline:

(1) Most disciplinary problems were resolved under Articles 15, UCMJ. There were 103 Articles 15 administered, 0 Summary Courts-Martial, 4 Special Courts-Martial, and 1 General Courts-Martial.

(2) There were four Congressional Inquiries and 14 IG Complaints during the period which were satisfactorily resolved locally.

d. There were two minor non-battle casualties during the reporting period resulting in the loss of 10 man days. There was one fatal non-battle casualty.

3. Intelligence:

a. During the past quarter, sweeps have been conducted in front of the bunkerline with negative results.

b. From 1 August 1970 to 4 October 1970 the 92nd Engineer Battalion manned and maintained bunkers 360 through 372. Effective 5 October 1970 the 92nd Engineer Battalion also manned and maintained bunker 374, and in addition reaction force bunker #3.

c. Major deficiencies in the maintenance of the 92d Engineer Battalion sector of the Long Binh Post perimeter have been corrected, and only minor repairs within the sector remain to be accomplished along with removal of vegetation from within the defensive wire.

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d. The following terrorist activities have occurred within the past quarter:

(1) III Corps Tactical Zone: Long Khanh Province, VT 295097. 011715 September 1970. Five ton dump truck from Company A driven by a civilian driver received hostile rocket and small arms fire while proceeding west on OL-1. Driver abandoned vehicle. Enemy searched vehicle and removed driver's post pass. Minor rocket and small arms damage to vehicle; negative casualties.

(2) III Corps Tactical Zone: Bien Hoa Province, YT 115087. 031400 September 1970. D7 bulldozer from Company B struck a suspected mine or artillery round while clearing an area outside the perimeter in vicinity of Bunker 408. Right track blown off. Vehicle combat loss; negative casualties.

4. Operations, Plans and Training:

a. Operations and projects completed during the reporting period:

(1) Combat/Operational Support Missions Completed:

(a) 107-5647-0-20, Diver Support, Dong Nai River, 229th Assault Helicopter Battalion; 41st Engr Co/92d Engineer Battalion: Diver support was provided to the 229th Assault Helicopter Battalion to recover helicopter downed in the Dong Nai River. Project began and was completed on 16 October 1970.

(b) 110-5638-0-20, Lowboy Support, 62d Engineer Battalion; 92d Engineer Battalion: Nine 25-ton lowbeds and tractors were provided to the 62d Engineer Battalion for a period of two days. Project started on 14 September 1970 and was completed on 16 September 1970.

(c) 112-5616-0-20, 60-ton Lowbed Support; 41st Engr Co/92d Engineer Battalion: One 60-ton lowbed was provided to the 79th Engineer Group. Project began on 15 July 1970 and was completed on 8 August 1970.

(d) 146-5637-0-20, 60-ton Lowbed Support; 92d Engineer Battalion: One 60-ton lowbed with tractor was provided to the 62d Engineer Battalion for the 8th and 9th day of September 1970.

(e) 146-5640-0-20, 60-ton Lowbed Support, 62d Engineer Battalion; 92d Engineer Battalion: One 60-ton lowbed with tractor was provided to the 62d Engineer Battalion for a period of two days. Project began on 20 September 1970 and was completed on 21 September 1970.

(f) 189-5642-0-20, 60-ton Lowbed Support; 92d Engineer Battalion: A 60-ton lowbed with tractor was provided to the 62d Engineer Battalion from 28 September 1970 to 1 October 1970.

(g) 191-5628-0-20, Lowbed Support - 79th Engineer Group; 92d Engineer Battalion: One 60-ton lowbed with tractor and 6 25-ton lowbeds with tractors were provided to the 62d Engineer Battalion. Project began on 13 August 1970 and was completed on 22 August 1970.

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(h) 191-5646-C-20, Tractor and Trailer Support - 62d Engineer Battalion; 92d Engineer Battalion: Seven 10-ton tractors with 25-ton trailers were provided to the 62d Engineer Battalion. Project began on 18 October 1970 and was completed on 21 October 1970.

(i) 207-6350-C-20, Aviation Relocation, BHAB; 92d Engineer Battalion: 685 cubic yards of concrete was issued to the 46th Engineer Battalion for aviation relocation support mission. Project began on 15 July 1970 and was completed on 21 August 1970.

(j) 207-6434-C-20, Signal Poles, 20th Engineer Brigade; B Co/92d Engineer Battalion: One signal pole was installed at 20th Engineer Brigade Headquarters. Project began on 23 August 1970 and was finished on 29 August 1970.

(k) 207-6496-C-20, Crane Support, Bien Hoa; 92d Engineer Battalion: A crane with a 50' boom was provided to the first Cavalry Division (AM) to erect 3@ 80' poles at BHAB. Project began on 21 September 1970 and was completed on the same day.

(l) 212-6435-C-20, Diver Support, Song Be; 41st Engr Co/92d Engineer Battalion: Diving team from the 41st Engineer Company was provided to the 79th Engineer Group to inspect a bridge pier at Song Be. Project began on 14 August 1970 and was completed on 18 August 1970.

(m) 212-6459-C-20, Diver Support - Song Be; 41st Engr Co/92d Engineer Battalion: A diving team was furnished to the 79th Engineer Group to inspect bridge piers at Song Be River Bridge. Project was cancelled due to unsafe diving conditions i.e. current too rapid at bridge site.

(n) 217-6361-C-20, Aviation Facility, Di An; 92d Engineer Battalion: Four 830M w/scrapers were provided to the 34th Engineer Group for earth work at Di An. Project began on 24 September 1970 and was completed on 17 October 1970.

(o) 243-6171-C-20, Clear Fields of Fire, 95th Aviation Company; D Co/92d Engineer Battalion: Cleared area 950 meters by 200 meters for fields of fire in front of the 95th Aviation Company perimeter at the Plantation. Project began on 13 September 1970 and was completed on 19 September 1970.

(p) 243-6318-C-20, Land Clearing - Long Binh Post; 41st Engr Co/92d Engineer Battalion: Vegetation was cleared in a 500 meter wide strip outside the eastern perimeter of Long Binh Post from YT 072750 to YT 125115. Project began on 24 August 1970 and was completed on 8 September 1970.

(q) 243-6397-C-20, Site Preparation and Facility, Precast Concrete Plant; D Co/92d Engineer Battalion: A 46,000 SF stabilized hardstand area was prepared. Also a 30'x60' wood frame structure with concrete floor, a 13'x148' wood frame structure with concrete floor, a 28'x50' concrete bridge casting pad and a 3'x45' rebar cutting platform were constructed. The project began on 6 July 1970 and was completed on 29 August 1970.

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(r) 243-6399-0-20, SOC Construction - 159th Engineer Group; B Co/92d Engineer Battalion: A graded and compacted hardstand was prepared, and a 975 SF Sector Operational Control bunker was built on the prepared site. Project began on 17 July 1970 and was completed on 29 August 1970.

(s) 243-6418-0-20, Repair Subsurface Failure, Long Thanh North; B Co/92d Engineer Battalion: Failures in taxiways at Long Thanh North Airfield were repaired by installing reinforced concrete patches sufficient to withstand existing traffic through the present rainy season. The project began on 15 August 1970 and was completed on 13 September 1970.

(t) 243-6482-0-20, Minesweep - RMK; 92d Engineer Battalion: Area from YT 022046 to Long Binh Post perimeter fence was swept for mines on 8 September 1970. Project was completed on the same day.

(u) 246-6404-0-20, Perimeter Clearing, Long Thanh North Army Airfield; D Co/92d Engineer Battalion: Cleared approximately 1700 meters by 100 meters of brush and undergrowth around the perimeter of Long Thanh North Army Airfield. Project began on 19 September 1970 and was completed on 10 October 1970.

(v) 246-6466-1-23(2-23), Precast Revetments, Bearcat; B Co, 92d Engineer Battalion: Constructed and issued 1120 linear feet of 4.8' x 8.0' concrete revetments to 79th Engineer Group for erection at Bearcat. Project began on 8 September 1970 and was completed on 3 October 1970.

(w) 246-6487-0-20, Repair of Long Thanh North Airfield; B Co/92d Engineer Battalion: Pot holes on the parking ramp, and asphalt pavement failure over subterranean cable network were repaired. Project began on 19 September 1970 and was completed on 3 October 1970.

(x) 251-6548-0-20, Lowbed Support - Phu Loi; 92d Engineer Battalion: Three lowbed trailers and tractors were provided to the 34th Engineer Group at Phu Loi. Project began on 23 October 1970 and was completed on 29 October 1970.

(y) 273-6316-0-20, Binh Loi Anti-mine Boom; 41st Engr Co/92d Engineer Battalion: A mine boom was constructed at the Binh Loi Bridge approximately 1200' long. The project began on 29 July 1970 and was finished on 22 August 1970.

(z) 275-5617-0-20, 5-ton Support - 25th Infantry Division; Co B/92d Engineer Battalion: Furnished 25 5-ton dump trucks to the 25th Infantry Division for a period of seven days to haul five inch minus rock from University Quarry. Project began on 8 October 1970 and was completed on 14 October 1970.

(aa) 275-6350-0-20, Transportation Support; 92d Engineer Battalion: Driver and assistant driver provided to operate a PAVE tractor and trailer. Also driver and assistant driver with tractor provided to pull an RMK-BRJ trailer for convoy from Cu Chi to Tay Ninh to 34th Group MRE yard at Long Binh. Project began on 15 October 1970 and was completed on 17 October 1970.

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(bb) 289-6445-0-20, Drainage for POL Berms, Long Binh Post; 92d Engineer Battalion: Five ea 6"x12' pipes with 6" valves were issued to the 12th CAG for self-help construction of a drainage system for POL berms. The project began and was completed on 10 September 1970.

(2) MTR Project Completed: None

(3) MACV Support Projects Completed: None

(4) BACOM Project Completed:

(a) 507-0307-0-01, Officer Mess and Administration Building, 20th Engineer Brigade Headquarters; B Co, D Co/92d Engineer Battalion: Constructed a 1200 SF addition to the existing General Officers Mess. Remodeled interior of Brigade Headquarters to include the entrance way, conference room, hallway, and General's office. Project started on 8 July 1970 and was finished on 28 October 1970.

(b) 573-0311-0-01, Repair LST Slit Pier, Newport; 41st Engr Co/92d Engineer Battalion: Four concrete slabs along with curbs and moorings were replaced and an asphalt wearing surface was added. Project began on 14 June 1970 and was completed on 25 August 1970.

(5) Material Issue Projects Completed: None

(6) LOC Projects Completed: None

(7) Construction Support Projects Completed: None

b. Combat/Operational Support Missions Active at end of Reporting Period:

(1) Operational Support Missions Active:

(a) 143-5632-0-20, Lowboy Support, 62d Engineer Battalion; 92d Engineer Battalion: Providing 2ea lowboys to the 62d Engineer Battalion for 3-4 days. Project began on 31 October 1970.

(b) 207-6200-0-20, Telephone Pole Erection Bien Hoa, Castle Airfield; B Co/92d Engineer Battalion: Pole is presently on site and waiting for 20th Brigade Aviation detachment to attach hardware for antenna. Project started on 13 July 1970 and is 90% complete.

(c) 207-6406-0-20, Construct VIF Helipad and Helicopter Maintenance Pad; B Co/92d Engineer Battalion: Have constructed one 30'x30' VIF helipad and will be assisting the aviation detachment in constructing a 20'x40' maintenance pad. Project started 11 September 1970 and is 50% complete.

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- (d) 207-6439-0-20, Concrete for Senior Medical Advisor Bunker; B Co/92d Engineer Battalion: Mixing concrete on site with 16S mixer to assist in construction of a medical bunker. Bunker is now 65% complete. Project started on 21 September 1970.
- (e) 207-6522-0-20, Clear Fields of Fire, Plantation; D Co/92d Engineer Battalion: Clearing area 100 meters by 2000 meters to the immediate front of the bunker line so as to improve fields of fire. Project started on 6 October 1970 and is 7% complete. Rain has delayed project considerably.
- (f) 243-6271-0-20, Precast Revetments, Sanford Airfield; B Co/92d Engineer Battalion: Precasting 6ea CH-58 and 6 ea UH-1H revetments. Also precasting 6 end walls to be erected at Sanford Army Airfield on Long Binh Post. Project started on 21 October 1970 and is 12% complete.
- (g) 243-6303-0-20, Precast Revetments, 1st Signal Brigade; B Co/92d Engineer Battalion: Have completed precasting 320 linear feet of 7' revetments with footers. Presently awaiting unit pickup. Project started on 23 October 1970 and is 95% complete.
- (h) 243-6422-0-20, Penprime Truck Support, Bien Hoa Army Base; A Co/92d Engineer Battalion: Penpriming taxiways, flowways, and access roads for the 31st Engineer Battalion on their project at BHAB. Project started on 31 July 1970 and is continuous.
- (i) 243-6446-2-23, Precast Concrete Revetments, FSB Nace; B Co/92d Engineer Battalion: Produced 12ea 4.8'x8' revetments and 80ea 5.5'x8' revetments. Awaiting final unit pickup. Project started on 10 August 1970 and is 95% complete.
- (j) 243-6454-0-20, Precast Yard Extension; B Co/92d Engineer Battalion: Constructed a new building for pouring revetment slabs which will expand present facilities by 80%. Also erected water tower with tank and associated plumbing for flooding pouring bays. Presently constructing additional steel forms for new building. Project started on 1 September 1970 and is 95.6% complete.
- (k) 243-6501-0-20, Grader and Dozer Support, IIFV; D Co/92d Engineer Battalion: Leveling area for a baseball diamond and football field for the II Field Force, Vietnam. Project started on 25 September 1970 and is 90% complete.
- (l) 243-6524-0-20, Precast Concrete Bunker (IBP); B Co/92d Engineer Battalion: Constructing and erecting 1 ea precast bunker at IBP perimeter and providing technical assistance to install concertina wire. Project started on 15 October 1970 and is 45% complete.

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(m) 287-6453-0-20, Vung Tau Harbor Range Towers: 41st Engr Co/92d Engineer Battalion: Constructing two harbor range towers at Vung Tau for the Coast Guard. Project started on 1 September 1970 and is 90% complete.

(n) 289-6457-0-20, Earthmoving Platoon Support: C Co/92d Engineer Battalion: Supported the 31st Engineer Battalion at FSB Mace by providing them with one equipment platoon. Project started on 25 September 1970 and is due to be completed on 1 November 1970. Project is 97% complete.

(o) 291-5559-0-20, Repair Cau Ganh Pier Protective System: 41st Engr Co/92d Engineer Battalion: Repairing the pier protective system at Cau Ganh as required. Job began on 1 August 1970 and is 45% complete.

(p) 291-5986-0-20, Tactical Roads Program: D Co/92d Engineer Battalion: Project consists of constructing secondary roads and bridges with the 92d Engineer Battalion Area of Responsibility. Project began on 22 November 1969 and is 59.3% complete.

(q) 291-6308-2-23, Maintenance of Base Camp Perimeter, IBM: 92d Engineer Battalion: Extensive work is being done on the bunkers and the area immediately in front of the bunker line. Project began on 4 June 1970 and is continuous.

(r) 291-6308-6-23, Maintenance of Base Camp Perimeter, Black Diamond Industrial Site: C Co/92d Engineer Battalion: The perimeter lighting is being improved and the bunkers are being upgraded. Project began on 4 June 1970 and is continuous.

(2) BACON Projects Active

(a) 543-0317-0-01, Maximum Security Facility, Long Binh: D Co/92d Engineer Battalion: D Company has been tasked to construct a 120 man Maximum Security Confinement Facility. The project is 45.68% complete.

(b) 543-0316-0-01, VRF Service Outlet and Warehouse: B Co/92d Engineer Battalion: B Company has been tasked to construct one 40'x96' building, one 40'x120' and one 40'x168' building. The project is 74.8% complete.

(c) 546-0301-0-01, Maintenance Facility, Long Thanh North: D Co/92d Engineer Battalion: D Company has been tasked to help erect one 40'x90' pre-engineered Pascoe building. The project is 1% complete.

(3) Well Drilling Projects Active: None

(4) Construction Support Projects Active:

(a) 707-5309-0-20, Operation and Maintenance of Black Diamond Industrial Site: C Co/92d Engineer Battalion: C Company has been tasked with the operation and maintenance of Black Diamond Asphalt Plant and Crusher Complex. The project is a continuous one.

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(b) 717-5303-0-20, Base Camp Maintenance for the 92d Engineer Battalion, Xom Tam Quarry; C Co/92d Engineer Battalion: C Company has been tasked with the maintenance of the Xom Tam Quarry, Black Diamond Industrial Site. The project is a continuous one.

(c) 743-5303-0-20, Operation and Maintenance of Concrete Batch Plant, LBN; A Co/92d Engineer Battalion: A Company has been tasked with the operation and maintenance of a concrete batch plant. This is a continuous project.

(d) 743-5304-0-20, Operation and Maintenance of Precast Yard; B Co/92d Engineer Battalion: B Company has been tasked to operate and maintain a precast yard. This project is continuous.

(e) 787-5311-0-20, DTP Loading Site, Vung Tau; 94th Engr Det/92d Engineer Battalion: The 94th Engineer Detachment (Quarry) has been tasked with the operation and maintenance of the Vung Tau On-Loading Piers. This project is continuous.

(f) 787-5313-0-20, Operation and Maintenance of Vung Tau Industrial Site; 94th Engr Det/92d Engineer Battalion: The 94th Engineer Detachment (Quarry) has been tasked with the operation and maintenance of the Vung Tau Quarry Site. This project is continuous.

(5) Civic Action Project Active: 707-5302-0-20, Hot Mix Issue, Bien Hoa Province Public Works; C Co/92d Engineer Battalion: C Company has been tasked to issue up to 1800 tons of asphalt at a maximum rate of 20 tons per day. A total of 581 tons was issued over the last reporting period. This project is continuous.

c. Engineer Plans: None

d. Plant Operations: Refer to paragraph 5(c).

e. Training:

(1) During the past quarter, 51 Vietnamese were trained as mechanics through "Project Buddy". The success achieved by this program was due in part to the interest displayed by the trainees and the long hours they worked.

(2) The Battalion training section supervised and assisted in the orderly execution of the required training for the Battalion during the past quarter. One aspect of this training was to insure that at least once a month all personnel fired their weapons and all bunker guards fired the crew-served weapons.

5. Logistics:

EGBD-OP

SUBJECT: Operational Report - Lessons Learned, 92d Engineer Battalion
(Construction), Period Ending 31 October 1970, RCS CSFOR-65(R2)

a. **Construction Materials:** Material requirements have increased tremendously since the battalion began constructing the Long Binh Maximum Confinement Facility. The majority of materials required for Phase I of the project are on-hand with the plans for Phase II still being prepared. Future difficulties may occur as larger quantities of materials are retrograded by depot and existing stocks are depleted.

b. **Contract Haul:** The majority of the bitumen used by the 92d Engineer Battalion was supplied by contract haul. Some difficulty was initially encountered in the scheduling and delivery of the bulk AP-3. This method of delivery has and will continue to save both time and effort.

c. **Mineral Products:** 3564 cubic yards of concrete were produced by the 92d Engineer Battalion with 4200 tons of sand purchased from RMK. Black Diamond Industrial Site crushed 90,567 cubic yards of rock and produced 41,383 tons of asphalt. During the period 15-31 October 1970 the Vung Tau Quarry has crushed 39,250 tons of rock.

d. **TO&E Equipment:** Equipment shortages have been considerably reduced since a reconciliation by ICCV was performed. However, certain items still remain unavailable such as the following:

- (1) 11 semi-trailer 25 ton
- (2) 1 5-ton wrecker
- (3) 1 semi-trailer 60 ton

e. The attachment of the 94th Engineer Detachment (Quarry) increased the MCA/IOC equipment available to the battalion. Present equipment on hand includes:

- | | |
|---|---|
| (1) 6 600CFM compressors | (9) 1375 amp welders |
| (2) 2 hydracone crushers | (10) 2 400 amp welders |
| (3) 6 pneumatic rock drills | (11) 5 scoop loaders |
| (4) 7 transit mixers | (12) 2 welding attachments |
| (5) 1 concrete plant | (13) 1 power distribution equipment |
| (6) 3 sharpening and threading machines | (14) 1 bin unit |
| (7) 3 tampers | (15) 3 conveyors |
| (8) 1 backhoe | (16) 1 box screen |
| | (17) 1 jaw crusher |
| | (18) 1 apron feeder |
| | (19) 1 crushing and screening plant,
250 tons per hour |
| | (20) 2 600 Amp Welders |

f. The turnover of equipment to the Army of the Republic of Vietnam continued with 2 10-ton tractors, and 2 semi-trailers 25-ton being transferred to the 62d Engineer Battalion (IC) for transfer to the Vietnamese Army.

g. **Maintenance:**

(1) The **deadline rate** on TO&E equipment remaining around 7% for the last quarter is well under the 8.5% goal set by 20th Engineer Brigade.

ECBD-CP

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(Construction), Period Ending 31 October 1970, RCS CSFOR-65(R2)

(2) In the view of the coming CMT, this unit has set up an assistance team, made up of personnel in battalion, to assist units prior to inspection. This system has proven very successful.

(3) During the last quarter, the 41st Engineer Company (FC) motor pool was picked as best motor pool in the 20th Engineer Brigade through CMT inspection.

(4) Criteria on 5-ton dumps:

(a) During the last quarter this unit obtained information on the criteria of 5-ton dump trucks for turn-in on age and miles.

(b) Checking throughout the battalion this unit has been able to requisition (6) six 5-ton dump trucks.

(5) Revised motor stables procedure, where by each member in the company chain of command is present during motor stables, has been initiated.

6. Force Development: During the reporting period the 92d Engineer Battalion Headquarters, A, B, and D Companies were located on Long Binh Post and carried out their normal mission as outlined in paragraph 1(b). C Company operated and maintained the Black Diamond Industrial Site located at Xom Tam. The 41st Engineer Company (Fort Const) has been located at Long Binh and carried out its mission of port construction and pier-protective systems construction. The 515th Engineer Platoon (Asphalt) is attached to the battalion and operates an asphalt plant at Black Diamond Industrial Site. The 22nd, 38th, 156th, 551st, and 917th Engineer Detachments (Well Drilling Team) are attached and located on Long Binh Post. They have been performing their mission of drilling and maintaining wells. The 94th Engineer Detachment (Quarry) was attached to the 92d Engineer Battalion on 7 October 1970. The 94th operates and maintains a quarry/crusher complex and On-loading site at Vung Tau.

7. Command Management: None

8. Inspector General Activities: During the past reporting period, this Battalion has dealt with all IG complaints and requests in a prompt and efficient manner.

9. PIC:

a. The responsibility of the Public Information Office is to inform those people outside of the Battalion of the operations, civic actions, and efforts toward Vietnamization that the 92d Engineer Battalion is involved in. This office also publishes a monthly Battalion newspaper that informs the members of the 92d of these same actions so that the personnel will be able to keep in touch with the rest of the battalion. Finally, the PIO gathers and forwards hometown news releases on those personnel receiving awards and decorations, and incoming replacements.

EGED-OP

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b. The PIO furnishes two articles a week for outside publication. These articles are sent to the 159th Engineer Group on the first of every week. The PIO reports the most significant actions of the Battalion and gives credit to those who put forth effort worthy of praise.

c. The Dirtmover is the monthly publication of the 92d Engineer Battalion, designed to inform and entertain the members of the battalion. The information contained in the Dirtmover is supplied by the PIO and Information Officers in each of the Companies and Detachments. Outside information is gathered from DA publications and a special effort is made to provide information concerning the problems and questions of the individual soldier. Each Dirtmover includes a report of R&R sites, postal mailing dates, articles by the battalion Chaplain, and surgeon.

d. The objective of the Public Information Office is to boost the moral of the men in the Battalion and to report the accomplishments of the 92d to outside news media. In this reporting period, articles submitted by the PIO have been published in the Army Reporter, the Castle Courier, and numerous civilian newspapers. The Dirtmover is enjoying an increase in popularity along with an increase in information supplied to this office by the companies and detachments. During this reporting period over 100 hometown news releases have been forwarded to the 159th Engineer Group for outside release.

10. Civic Action: During the reporting period the 92d Engineer Battalion aided the Vietnamese people through more than 910 med caps.

Section 2, Lessons Learned: Commander's
Observations, Evaluations and Recommendations

1. Personnel: None

2. Intelligence: None

3. Operations:

a. Underwater Cure of Precast Concrete Revetments

(1) Observations: Curing time of Precast Concrete Revetments determined the frequency which curing and casting bays at the precast yard could be used.

(2) Evaluation: If curing time required prior to form removal could be reduced then production with the existing facilities could be increased.

(3) Recommendation: The revetment pouring bays were flooded after the slabs were poured so as to decrease curing time. Compression tests show that under water curing increased the 3 day strength from 28% of 28 day strength to 45% of 28 day strength. Currently slabs are being removed from the casting and curing slab after only 48 hours of curing time.

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Actual testing of concrete cylinders cured under these conditions has produced the following results:

- (a) 28 day compressive strength - 3660 PSI
- (b) 7 day compressive strength (AVG) - 1858 PSI
- (c) These tests yielded 55% 28 day strength at 7 days.

Form removal after 48 hours has not resulted in any structural failures and it allows each curing and casting bay to be utilized two times per week, increasing production by 25%.

b. Use of Steel Forms for Precast Concrete Revetments

(1) Observation: On 21 July 1970 the 92d Engineer Battalion was tasked to produce precast concrete revetments. Prior to construction of plant facilities, revetment construction was observed at the 46th Engineer Battalion. A significant portion of the construction effort at the 46th Engineer Battalion was devoted to the production of wood forms. Large quantities of lumber were necessary since the forms could not be used continuously due to the adverse affect of deforming. It was noted that accurate forming was a must and that quality was being impaired by trying to reuse these forms. In addition, wood forms required bracing prior to pouring concrete. Again, accuracy of slab dimensions depended upon proper squaring and bracing of the wood forms.

(2) Evaluation: A revetment form was needed which could be reused so as to save materials and be easily and rapidly assembled to reduce forming labor. This form should also be able to produce quality slabs of a uniform size.

(3) Recommendation: It was decided to use steel adjustable forms. The steel forms are eight (8) feet wide and are adjustable to produce slabs from 4'0" thru 9'0" high. The adjustable features reduced the number of forms which would have been required to produce various sizes. Steel forms provided easy removal of concrete slabs and simple accurate reassembly. Forms were also stable without bracing and slabs can be produced within 1/8" tolerance.

4. Organization: None

5. Training: None

6. Logistics: Expediting Of Construction Materials

a. Observation: Existing Stocks of material, particularly steel products, in the Long Binh area are rapidly being depleted with stocks only available at Cam Ranh Bay or Da Nang.

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b. Evaluation: The problem has been solved by unit supply personnel flying to other depots, locating the items, and initiating the necessary supply actions. Difficulties are encountered because the personnel are generally unfamiliar with other depots, lack transportation, require special authorization for hand carries, and seldom have sufficient time to follow-up on air or ship transportation.

c. Recommendation: Designate a permanent representative from the Group or Brigade level who would coordinate all supply actions at his assigned depot.

7. Communications: Reduction of Excessive Radio Traffic

a. Observation: Excessive radio traffic concerning administrative topics (i.e., maintenance, operations, personnel) between Battalion Operations Center and Black Diamond Industrial Site was monopolizing the Battalion Command Radio Net.

b. Evaluation: Radio traffic reports were maintained in Operations Center and Battalion Command Center of all radio traffic to and from Black Diamond Industrial Site. From these reports the total transmission time involved with administrative reports was computed. The percentage of the total possible radio transmission time during normal duty hours (76 hours per week) was computed and it was found that 9.5% of the potential transmission time was consumed by 6% of the radio stations within the Battalion Command Net.

c. Recommendation: Acquisition of a radio teletype unit (AN/GRC-142) was recommended for use at Black Diamond Industrial Site to carry all administrative traffic between that location and Battalion Headquarters. This teletype unit would free the Battalion Command Net of administrative reports and would provide a typewritten copy of all traffic between these two locations. Because of a shortage of these teletype units within Long Binh Post Depot a reasonable substitute had to be found. The AN/GRC-163 FM Multiplex Radio Set was chosen as a substitute for the four (4) field telephone stations on each end of the net to expedite rapid communications. Directional antennas employed with these radios diminish interference by other stations with traffic between Battalion Headquarters and Black Diamond Industrial Site. This enhances communications security between these locations, as intercepting stations must be in line with the radio shot between these locations. Should teletype units become readily available at a future time, land-line teletype can be employed through the RWI (radio-wire integration) capabilities of the AN/GRC-163.

8. Materials: None

9. Other: None

DISTRIBUTION:

15-CO, 159th Engr Gp, ATTN: EGB-OP
4-CG, 20th Engr Bde, ATTN: AVBI-CHOPS
3-CG, USAECV(P), ATTN: AVCC-MO
3-CG, USARV, ATTN: AVHDO-DO (Courier)16
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C.E. Eastburn
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LTC, CF
Commanding

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EGB-CO (14 Nov 70) 1st Ind

SUBJECT: Operational Report - Lessons Learned, 92nd Engineer Battalion,
Period Ending 31 October 1970, RCS CSFOR-65(R2)

DA, HQ, 159th Engineer Group, APO 96491

21 November 1970

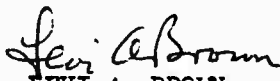
TO: Commanding General, 20th Engineer Brigade, ATTN: AVBI-OS, APO 96491

1. Submitted in accordance with USARV Regulation 525-15, dated 13 April 1969.

2. Comments are made on the following paragraphs:

a. Section II, paragraph 3: Strongly concur for both subparagraphs a and b. Use of these new methods yields both a product that is equal or superior in quality and an increased quantity through faster production.

b. Section II, paragraph 7: Concur. While recommendations may not seem commensurate with results of study, e.g., 9.5% of potential transmission time being consumed by 6% of Battalion Command net radio stations, other factors contribute to the recommendation. Traffic on radio net will be diminished and recommendation provides for much greater security.


LEVI A. BROWN
COL, CE
Commanding

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AVBI-OS (14 November 1970) 2nd Ind
SUBJECT: Operational Report-Lessons Learned, 92nd Engineer Battalion
(Construction), Period Ending 31 October 1970, RCS CSFOR-
65(R2)

DA, HEADQUARTERS, 20TH ENGINEER BRIGADE, APO 96491 27 NOV 1970

TO: Commanding General, United States Army Engineer Command Vietnam
(Prov), ATTN: AVCC-MD, APO 96491

1. Submitted in accordance with letter, AVCC-MD, CG, USAECV(P) dated
13 July 1970, Subject: Operational Reports-Lessons Learned (ORLL's).

2. This headquarters has reviewed the Operational Report-Lessons
Learned for the quarterly period 31 October 1970 from Headquarters
92nd Engineer Battalion and comments of the indorsing headquarters.

3. Comments follow:

a. Section II, paragraph 3: Concur with the indorsing head-
quarters concerning both subparagraphs. 1500psi is adequate and the
48 hour curing will increase production. The use of steel forms pro-
duces a better product and in repetitive work saves both time and materials.

b. Section II, paragraph 7: Concur with the indorsing headquarters.

FOR THE COMMANDER:

D.L. Mc Bride

D.L. MC BRIDE
1LT, CE
Assistant Adjutant

Copies furnished:
CO, 92nd Engr Bn
CO, 159th Engr Gp

AVCC-MO (14 Nov 70) 3rd Ind

SUBJECT: Operational Report -Lessons Learned for the 92nd Engineer
Battalion, Period Ending 31 October 1970, RCS CSFOR-65 (R2)

HQ, US Army Engineer Command Vietnam (Provisional), APO 96491 12 DEC 70

TO: Commanding General, United States Army Vietnam, ATTN: AEHDO-DO,
APO 96375

The significant activities and lessons learned have been reviewed and
are an adequate reflection of the units operations during this period.

FOR THE COMMANDER:

R. P. SPENCER JR.

R. P. SPENCER JR.

1LT, CE

Assistant Adjutant

CF:

CG, 20th Engineer Brigade

CO, 92nd Engineer Battalion

AVHDO-DO (14 Nov 70) 4th Ind

SUBJECT: Operational Report - Lessons Learned, 92d Engineer Battalion
(Construction), Period Ending 31 October 1970, RCS CSFOR-65(R2)

Headquarters, United States Army Vietnam, APO San Francisco 96375 18 JAN 71

TO: Commander in Chief, United States Army Pacific, ATTN: GPOP-DT,
APO 96558

1. This Headquarters has reviewed the Operational Report-Lessons Learned for the quarterly period ending 31 October 1970 from Headquarters, 92d Engineer Battalion (Construction) and concurs with comments of indorsing headquarters.

2. Reference item concerning "TOE Equipment," Section I, page 12, paragraph d. Items cited are short throughout the command. Asset picture will improve in the near future as a result of Keystone operations. All shortages for these items should be filled by the end of FY 71. Unit has been so advised.

FOR THE COMMANDER:

Cy furn:
USAECV
92d Engr Bn


JACK P. COOK
CPT, AGC
Assistant Adjutant General


GPOP-DT (14 Nov 70) 5th Ind
SUBJECT: Operational Report of HQ, 92d Engineer Battalion
(Constr), for Period Ending 31 October 1970,
RCS CSFOR-65 (R2)

HQ, US Army, Pacific, APO San Francisco 96558 10 FEB 1971

TO: Assistant Chief of Staff for Force Development, Department
of the Army, Washington, D. C. 20310

This headquarters concurs in subject report as indorsed.

FOR THE COMMANDER IN CHIEF:



L.M. OZAKI
CPT, AGC
Asst AG

UNCLASSIFIED

Security Classification

DOCUMENT CONTROL DATA - R & D

(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)

1. ORIGINATING ACTIVITY (Corporate author) HQ DA, OACSFOR, Washington, D.C. 20310		2a. REPORT SECURITY CLASSIFICATION FOR OFFICIAL USE ONLY	
		2b. GROUP Protective Markings Are Excluded from Automatic Termination.	
3. REPORT TITLE Operational Report - Lessons Learned, HQ, 92d Engineer Battalion			
4. DESCRIPTIVE NOTES (Type of report and inclusive dates) Experiences of unit engaged in counterinsurgency operations, 1 Aug to 31 Oct 1970.			
5. AUTHOR(S) (First name, middle initial, last name) CO, 92d Engineer Battalion			
6. REPORT DATE 14 November 1970		7a. TOTAL NO. OF PAGES 24	7b. NO. OF REFS
8a. CONTRACT OR GRANT NO.		8a. ORIGINATOR'S REPORT NUMBER(S) 704055	
b. PROJECT NO. N/A		8b. OTHER REPORT NO(S) (Any other numbers that may be assigned this report)	
c.			
d.			
10. DISTRIBUTION STATEMENT			
11. SUPPLEMENTARY NOTES N/A		12. SPONSORING MILITARY ACTIVITY DA, OACSFOR, Washington, D.C. 20310	
13. ABSTRACT			